

Work Order ID 109193-1

SPUR

109193

Page 1

November-14-13 7:06:26 AM

Item ID: D4857-1 Accept

N900040100

Setup Start *NS1*

Revision ID:

Stop *NS2*

Item Name: Outer Deflector, LH

Start Date: 11/14/13 Start Qty: 10.00 *(6)* *10*

Cust Item ID:

Required Date: 11/22/13 Req'd Qty: 10.00 *10*

Customer:

Reference:

Approvals: Process Plan: *W* Date: Tooling: Date:

Run Start *NR1*

QC: Date: SPC (Y/N): Date:

Stop *NR2*

Sequence ID/
Work Center ID Operation
Description Set Up/
Run Hours

Tool ID Tool # Plan
Code Accept Reject Reject Insp.
Qty Qty Number Stamp

Draw Nbr Revision Nbr

D4857

100

0.00

100

Purchasing

Purchasing

Memo

0.00

Issue P/O: 22063

Possible supplier: CARBON BY DESIGN

Manufacture as per dwg

Prime Deflector as per dwg (SEE NOTE 4)

Certificate of Conformity release note is required.

13/11/14 m/s

110

Receive & Inspect for Damage & Mat'l Certs 0.00

110

Packaging

Packaging

Memo

0.00

13/14/9 (4)

Work Order ID 109193

November-14-13 7:06:26 AM

SPVJ

109193

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Item ID: D4857-1

Accept

N900040100

Setup Start *NS1*

Revision ID:

Stop *NS2*

Item Name: Outer Deflector, LH

Start Date: 11/14/13 Start Qty: 10.00 2

10

Cust Item ID:

Required Date: 11/22/13 Req'd Qty: 10.00

10

Customer:

Reference:

Approvals: Process Plan: Date:

Tooling: Date:

Run Start *NR1*

QC: Date:

SPC (Y/N): Date:

Stop *NR2*

Sequence ID/ Work Center ID	Operation Description	Set Up/ Run Hours	Tool ID	Tool #	Plan Code	Accept Qty	Reject Qty	Reject Number	Insp. Stamp
120 *120* QC Quality Control	QC5- Inspect part completeness to step on W/O Memo	0.00 0.00				4			
130 *130* Packaging Packaging	Identify as per dwg & Stock Location: ST228 Memo	0.00 0.00				4x		13-12-9	
140 *140* QC Quality Control	QC21- Final Inspection - Work Order Release Memo	0.00 0.00							

13/12/11

13-12-10

Picklist Print

November-14-13 7:06:26 AM

Page 1

Work Order ID: 109193
Parent Item: D4857-1
Parent Item Name: Outer Deflector, LH

Start Date: 11/14/13

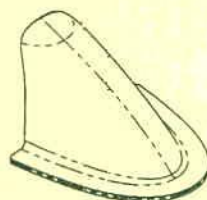
Required Date: 11/22/13

Start Qty: 10.00

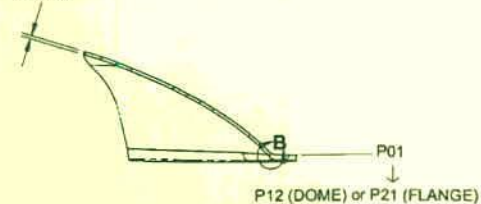
Required Qty: 10.00

Comments: IPP REV:A NEW ISSUE 13.10.18 DD VERIFIED BY:JLM

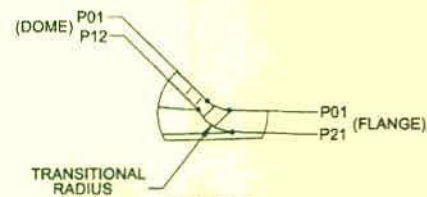
Component Item ID/ Item Name	Replacement Item ID	Mfg/ Purch	Bin Item	Primary Location	Last Location	Route Seq ID	Unit of Measure	Qty on Hand	Qty per Kit	Total Qty	Qty Issued	Date Issued	Status
D4857-1P Wiper Deflector		Purchased	No				Each	0.0000		10		11/14/13	(4)



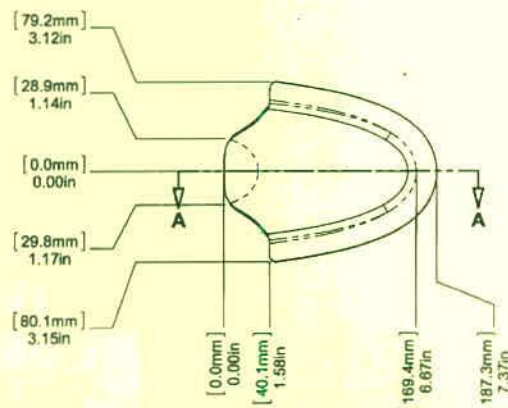
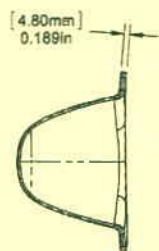
[2.74mm]
0.108in



SECTION A-A
SCALE 1X



DETAIL B
SCALE 8X



D4857-1 WIPER DEFLECTOR

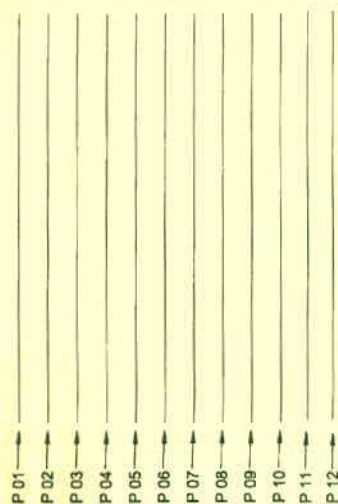
cto
10/19/93

RELEASED
2013-10-09
MD

NOTES:

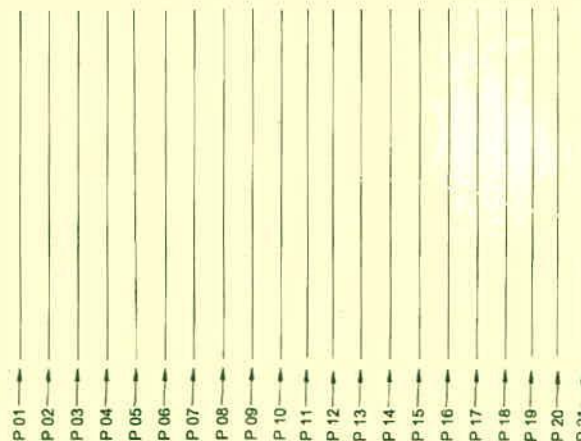
- 1) MATERIAL: KEVLAR #285/353 4H SATIN, EPOXY PREPREG, 250°F CURE, 40% R/C
- 2) MATERIAL: CARBON FIBER PREPREG, ALDILA PREPREG SYSTEM 3K2X2-FR250-204/40 T300.
- 3) MATERIAL: ALDILA #120-E-GLASS AR250 WITH 48% RC;
- 4) FINISH: PRIMER IAW MIL-P-35582, 2-7 MIL MAX.
- 5) TOLERANCES: PER DART QSI 018 UNLESS OTHERWISE NOTED
- 6) UNITS: INCHES UNLESS OTHERWISE NOTED, ALL METRIC DIMENSIONS ARE REFERENCE DIMENSIONS.
- 7) BREAK SHARP EDGES: 0.005 TO 0.010 MAX
- 8) IDENTIFICATION: BAG AND IDENTIFY WITH DART P/N D4857-1, AGUSTA P/N "TBD", REVISION AND BATCH NUMBER AS PER QSI 044 METHOD 6.7
- 9) WEIGHT: 0.35 lbs (.15 kg)
- 10) PART DIMENSIONS CONTROLLED BY CAD MODEL FILE D4857-1-b.IGES
- 11) SEE PAGE 2 FOR LAYUP SCHEDULE. MANUFACTURE IAW MPP 145. CURE 250°F FOR 4 HOURS.

B	REVISED BOM, DRAWING VIEWS, NOTES	PE	13.08.13
A	NEW RELEASE	DB	13.05.23
REV.	DESCRIPTION	BY	DATE
DESIGN	DB	DART AEROSPACE LTD HAWKESBURY, ONTARIO, CANADA	
DRAWN	DB		
CHECKED	<i>A.P.</i>	DRAWING NO.	REV. B
MFG. APPR.	<i>MD</i>	D4857	SHEET 1 OF 2
APPROVED	<i>MD</i>	TITLE	SCALE
DE APPR.	<i>MD</i>	WIPER DEFLECTOR	NTS
DATE	13.08.13	COPYRIGHT © 2013 BY DART AEROSPACE LTD THIS DOCUMENT IS UNCLASSIFIED AND IS AVAILABLE TO THE GENERAL PUBLIC WITHOUT RESTRICTION FROM DART AEROSPACE LTD.	



LAYUP OF LAYERS (DOME)

LAMINATE - .108in (12 LAYERS)			
PLY	WARP ANGLE	MATERIAL	THICKNESS
01	90	[1]	.008-.010
02	0	[1]	.008-.010
03	90	[2]	.008-.010
04	0	[2]	.008-.010
05	90	[2]	.008-.010
06	0	[2]	.008-.010
07	90	[2]	.008-.010
08	0	[2]	.008-.010
09	90	[2]	.008-.010
10	0	[2]	.008-.010
11	90	[2]	.008-.010
12	0	[2]	.008-.010



LAYUP OF LAYERS (FLANGE)

LAMINATE - .189in (21 LAYERS)			
PLY	WARP ANGLE	MATERIAL	THICKNESS
01	90	[1]	.008-.010
02	0	[1]	.008-.010
03	90	[2]	.008-.010
04	0	[2]	.008-.010
05	90	[2]	.008-.010
06	0	[2]	.008-.010
07	90	[2]	.008-.010
08	0	[2]	.008-.010
09	90	[2]	.008-.010
10	0	[2]	.008-.010
11	90	[2]	.008-.010
12	0	[2]	.008-.010
13	90	[2]	.008-.010
14	0	[2]	.008-.010
15	90	[2]	.008-.010
16	0	[2]	.008-.010
17	90	[2]	.008-.010
18	0	[2]	.008-.010
19	90	[2]	.008-.010
20	0	[2]	.008-.010
21	90	[3]	.005

RELEASE
2013-10-09

DESIGN	DB	DART AEROSPACE LTD	
DRAWN	DB	HAWKESBURY, ONTARIO, CANADA	
CHECKED	A.P.	DRAWING NO.	REV. B
MFG. APPR.	[Signature]	D4857	SHEET 2 OF 2
APPROVED	[Signature]	TITLE	SCALE
DE APPR.	[Signature]	WIPER DEFLECTOR	
DATE	13.08.13	NTS	

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carbon by design

4128 Avenida De La Plata - Occanside, CA 92056
Phone: 760-643-1300 Fax: 760-643-1333

www.carbonbydesign.com

Packaging List

Date: 12/6/2013

Packaging List No. 15920

Cage Code: 4DG17

CBD Work Order No. 7450

Customer PO No.: PO22061

Billing Address:

Dart Aerospace Ltd.
1270 Aberdeen Street
Hawkesbury, ON K6A 1K7
613-632-5200
Fed-Ex shipping #15179324-0

Please Deliver To:

Dart Aerospace LTD
1270 Aberdeen
Hawkesbury, ON K6A 1K7
Canada

Customer Phone	Terms	Rep	Ship Date	Ship Via	Buyer
613-632-5200	Net 30	JB	12/6/2013	FedEx Next Day	Customer

Item	Line #	Description	Qty
D4857-1		Dart Wiper Deflector S/N: 15920-1/15920-4	4

Pricing Good For 30 Days

Total Items: _____ SHIPPING VALUE
\$2,600.00

CERTIFICATE OF CONFORMANCE (SHORT FORM CUSTOMERS ONLY)

I certify that on _____, the Carbon by Design LP furnished the supplies or services called for by the Purchase Order Above via Delivery in accordance with all applicable requirements.

I further certify that the supplies or services are of the quality specified and conform in all respects with the contract requirements, including specifications, drawings, preservation, packaging, packing, marking requirements, and physical item identification, and are in the quantity shown in this or on the attached acceptance document.

Quality: _____ Date: _____

WARNING - This document and its attachments may contain technical data, export of which is restricted by the International Traffic in Arms Regulations (ITAR) or the Export Administration Act (EAA) of 1979, as amended. Disclosure to foreign persons without prior U.S. Government approval is prohibited. Violations of these export laws and regulations are subject to severe civil and criminal penalties.



carbon by design

12/6/2013

CERTIFICATE OF CONFORMANCE

PO: No.: 22061	DESC: Wiper Deflector	Insp: JB/JR	Packing #: 15920
Customer: Dart Aerospace Ltd	Drawing: D4857 Rev B	Qty: 4	Serials: 15920-1/15920-4

Work Requirements:

Statement of Work:	SOW on file
Internal Process Doc.:	2206-253
Inspection Document:	2206-253
Manufacturing Process:	Infusion
Security Requirement:	Confidential

Approved Non-Conformances: NO

Pending: NO

DISPOSITION: To Customer, Ship

SHIP METHOD: FedEx Next Day

Certification Statement:

Carbon by Design LP certifies the items listed above conform to all of the applicable work and quality standard required in the purchase order listed above and any additional work requirements referenced.

All in process quality standards have been met according to customer requirements and Carbon by Design internal quality and finish requirements. All materials Certification are available for inspection and will remain on file at Carbon by Design for a period of no less than ten years.

Finished Materials/Process Specifications:

Per Drawing Requirements

Additional Quality Clauses:

Per PO Requirements, 100% Inspection

Active Quality Systems:

ISO9001:2008

Inspector's Name:

Joel Barrera

Signature:

[Signature]

Title:

Quality Manager Date: 12/6/13

